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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/440,467	11/15/1999	JUN YOSHIDA	35.C14025	3001
5514	7590	12/13/2004	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO			AKHAVANNIK, HUSSEIN	
30 ROCKEFELLER PLAZA			ART UNIT	
NEW YORK, NY 10112			PAPER NUMBER	

2621

DATE MAILED: 12/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/440,467

Applicant(s)

YOSHIDA ET AL.

Examiner

Hussein Akhavannik

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 30-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 30-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date: ____.  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____.   | 6) <input type="checkbox"/> Other: ____.                                    |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The cancellation of claims 1, 12-13, and 28-29 overcome the 35 USC 112 rejection of these claims cited in paragraph 3 of the previous office action.

### ***Response to Arguments***

2. Applicant's arguments filed 10/27/2004 have been fully considered but they are not persuasive.

On page 5, lines 12-13 of the remarks, the Applicant alleges that there is no motivation to lead one skilled in the art to combine Rhoads and Barton (which the Examiner assumes is meant to be Kadono). The Examiner respectfully disagrees. Rhoads explains the process of steganographically inserting tracer data into the image of a banknote when an illegal process such as copying a banknote is detected in column 8, lines 30-40. Such a tracer data would allow authorities to trace the location, date, and/or time that the illegal process took place. In addition, Mintzer et al explain that if a watermark has been tampered with (discrepancy is detected), then a system should take appropriate action to guard against malicious attacks in column 7, lines 16-29. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to embed a visible or invisible watermark as explained by Rhoads when an illegal process that been detected in the systems of Kadono and Mintzer et al, so that the illegal process can be halted or traced.

On page 5, lines 13-18 of the remarks, the Applicant alleges the resulting device of Rhoads and Kadono would simply have both features: (i) detection of whether input data has been altered, and (ii) detection of whether input data corresponds to an image such as a banknote

Art Unit: 2621

and insertion of tracer data into the data. The Examiner respectfully disagrees. The mentioned features would be part of the resulting device. However, the device, as suggested by Mintzer et al, would take appropriate action to guard against malicious attacks. One well-known method of guarding against attacks is watermarking an image, which is performed by both the systems of Kadono and Rhoads.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 30-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kadono (U.S. Patent No. 6,334,187) in view of Rhoads (U.S. Patent No. 6,449,377), and further in view of Mintzer et al (U.S. Patent No. 5,875,249).

Referring to claim 30, which is representative of claims 32 and 34,

i. Detection means for detecting whether or not input digital contents have been altered, on the basis of a result obtained by performing a predetermined operation process on at least a part of the digital contents is illustrated by Kadono in figure 10 by reference number S61 and explained in column 19, lines 11-26. The predetermined operation of detecting whether an embedded watermark has been destroyed corresponds to an illegal process. The watermark is part of the digital contents, corresponding to an image, as illustrated by Kadono in figures 7(a) to 7(c).

ii. Embedding means for embedding a digital watermark into the digital contents is illustrated by Kadono in figure 4(a). However, Kadono does not explicitly explain embedding when it is detected by the detection means that the digital contents have been altered. Rhoads explains the process of steganographically inserting tracer data into the image of a banknote when copying a banknote is detected in column 8, lines 30-40. Such a tracer data would allow authorities to trace the location, date, and/or time that the illegal process took place. Furthermore, data can be embedded to inform a system to halt any process which involves data that has had an illegal process associated with it as explained by Rhoads in column 8, lines 21-23. It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the tracer data as explained by Rhoads as either visible or invisible data into the illegal process detection system of Kadono because the processing performed by both system is digital and the tracer data would allow authorities to trace the illegal process and to halt any further processing performed involving the illegal data. In addition, Mintzer et al explain that if a watermark has been tampered with (discrepancy is detected), then a system should take appropriate action to guard against malicious attacks in column 7, lines 16-29. A well-known method of guarding an image for malicious attacks is watermarking an image, so that properties of the image are recognized or so that further use of the image is halted (as explained by Rhoads). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to embed a visible or invisible watermark as explained by Rhoads when an illegal process that been detected in the systems of Kadono and Mintzer et al, so that the illegal process can be halted or traced.

Art Unit: 2621

Referring to claim 31, which is representative of claim 33, the digital watermark embedded by the embedding means indicating information concerning transmission of the digital contents is explained by Rhoads in column 8, lines 20-40. Rhoads explains that the tracer data may include information about the location, date, and/or time that the illegal process took place, thereby indicating information about the transmission of the digital contents.

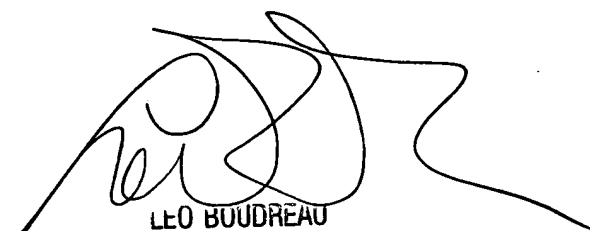
### *Conclusion*

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hussein Akhavannik whose telephone number is (703)306-4049. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo H. Boudreau can be reached on (703)305-4706. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hussein Akhavannik HA.  
December 3, 2004



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